

Please add new Claims 14-16.

1 --14. The method of Claim 11, wherein said design variables include  
2 ones from the group of journal angle, cone-profile angle, offset  
3 angle, tooth crest length, radial position of the center of the crest  
4 length, and the tooth angles.

1 --15. The method of Claim 11, wherein said objective functions are  
2 defined by  
3 
$$\text{Obj} = (V_1 - V_m)^2 + (V_2 - V_m)^2 + (V_3 - V_m)^2$$
  
4 where  $V_m = (V_1 + V_2 + V_3)/3$ ,  $V_1$ ,  $V_2$  and  $V_3$  are the  
5 volume removed by cones 1,2 and 3, respectively.

1 --16. The method of Claim 11, wherein a lower bound of a tooth crest  
2 length is determined by the tooth strength.